

## PATENT ABSTRACTS OF JAPAN

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### (54) DECODER

#### (57)Abstract:

PROBLEM TO BE SOLVED: To attain efficient and highly reliable decoding for multimedia information.

SOLUTION: Channel encoders C-Enc1, C-Enc2 respectively apply channel encoding to 1st and 2nd information requiring different communication quality, the resultant set of information is multiplexed, and a channel encoder C-Enc0 applies channel encoding to the multiplexed information and the result is transmitted. A channel decoder C-Dec0 of a soft discrimination input soft discrimination output configuration at a receiver side applies channel decoding to the received information, a demultiplexer DMux demultiplexes the information into signals corresponding to the respective information set, and corresponding channel decoders C-Dec1, C-Dec2 apply channel decoding to the information sets. In this case, an output likelihood of the C-Dec0 is given to the channel decoders C-Dec1, C-Dec2 as an input likelihood. Furthermore, the output likelihood of the channel decoders C-Dec1, C-Dec2 is given to the decoder C-Dec0 as the input likelihood so as to conduct repetitive decoding.